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SUCCESSFUL CASE OF OVARIOTOMY.

[Reported to the Boston Society for Medical Improvement, Jan. 11th, 1864, and communicated for the Boston Medical and Surgical Journal.]

By HENRY G. CLARK, M.D., SURGEON TO MASS. GEN. HOSPITAL.

Mrs. B., 59 years old; hitherto healthy; the mother of four children—two of them daughters and now living; had ceased to menstruate at the age of 50.

In February, 1863, she first noticed a slight fulness of the abdomen, with scanty urine and a red-colored discharge from the vagina. This discharge was repeated in March and April, recurring at regular monthly periods for six months thereafter, like normal menstruation. Dr. R. L. Hodgdon, of West Cambridge, who gives these particulars, was asked to see her in June last, when he found the urine scanty, the abdomen uniformly distended by ascites, and the legs cedematous. Examination of the os uteri by dilatation, &c., and interrogation of the functions of the heart, liver and kidneys, elicited no evidence of disease of either of these organs. Ovarian disease was supposed to exist, but its presence could not then be verified, in consequence of the great distension of the abdomen.

August 21st.—Tapping was resorted to, the ascites having steadily increased so as to embarrass the respiration, and several gallons of water withdrawn. An elastic tumor of the left ovary, of the size of the fist, was then discovered. Tincture of iodine was painted on the abdomen over the tumor, and the ordinary diuretics, which the patient had previously taken, were continued without effect, the ascites soon returning.

October 1st.—Respiration much obstructed by the fulness; great oedema of both lower extremities, and of lower part of abdomen, with erythema of right leg. Patient confined to bed. Pumpkin-seed tea was now substituted for other diuretics, with marked increase in the quantity of the urine.

Oct. 15th.—Oedema had disappeared, and the ascites was diminished; abdomen softer.

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Nov. 1st.—Urine again scanty, and the ascites increasing.

Dec. 17th.—Paracentesis, and about half the former quantity of water drawn off. Tumor now displays itself of a much larger size, and extending so far to the right side as to have obscured the diagnosis, if this had been now for the first time to be made; but clearly enough a movable, semi-solid, multilocular, cystic disease of the left ovary. The fluid discharged by tapping was decidedly not from either of the cysts, but from the abdominal cavity.

Dec. 30th.—After consultation with Dr. Hodges, and a full statement to her and her family of the chances and dangers of the operation, the patient decided she would have it done.

January 3d, 1864.—Drs. Hodgdon, Hodges and Putnam being present and assisting, the temperature of the room was raised to 80°, and the patient was etherized. Dr. Clark commenced the operation by making an incision from the umbilicus to the pubes. The peritoneum was found to be very much thickened from chronic inflammation, and its surface, both mural and intestinal, reddened and studded with minute granules. The accumulated ascitic fluid was carefully drained off, the tumor well examined by the hand, sweeping away some small adhesions on its front, and traced down to a very short, thick pedicle, in fact, the broad ligament itself, which connected it immediately with the uterus. It consisted of three good-sized cysts, and of a large, solid base; the whole being too large to be removed *en masse*, it was materially reduced by bringing the cysts to the mouth of the incision, and then tapping them separately. One of them contained two pints of a dark coffee-colored fluid, one a pint and a half of a rosy straw-colored, and the third a somewhat larger quantity of a clear, wine-colored fluid. The tumor was then, with some little effort, turned out of the abdomen, and a long needle, armed with a stout double ligature, passed through the centre of the pedicle, close to the uterus, and securely tied both ways. The pedicle, over which, as a matter of precaution, a second ligature was cast, was then divided a little wide of the point of ligation, and left projecting like a ruffle one or two inches outside of it. The other ovary, the uterus, and the other abdominal organs were examined as far as it was proper to do so, and no diseased condition, save that first mentioned, was observed. The lips of the wound, taking care to include also the peritoneum, were closed by sutures, the pedicle being brought out at the lowest point of the incision, and fastened there by carrying through it one of the stitches intended to close the parietal incision. A compress and bandage completed the dressing.

The loss of blood was trifling, no vessel having required a ligature, and the patient seemed to have suffered nothing by the operation. There was no vomiting, prostration, or marked disturbance of the pulse.

At 1, P.M., half an hour after the operation, she took two grains

of opium, and at night 40 drops of McMunn's elixir, and for nourishment, a little milk punch occasionally as she wished.

Jan. 4th.—Had a good night; pulse 100.

Jan. 5th.—The same. McMunn's elixir, 40 drops, morning and evening.

6th, 9, A.M.—Pulse 110; 6, P.M., 120, with soreness in abdomen, and a circumscribed, hard swelling, 4 inches by 3, in the parietes of the abdomen, above the left ilium and over the region of the kidney. Urine scanty, with light sediment, but no signs of peritonitis. Ordered poultice and tincture of iodine to swelling. Opiates repeated.

7th.—Less soreness; pulse 120. Sutures removed.

8th.—Soreness and swelling diminishing; pulse 112. Opiates only at night.

9th.—An enema brought away a few scybala.

10th.—Pulse 100; no appetite, aphthous mouth, the white patches spreading from the back of the tongue and soft palate to the cheeks on each side. Discharge of thin, healthy pus around pedicle all the time abundant; the rest of the wound healed by first intention.

Jan. 12th.—A moderate dose of castor oil and lemon juice, followed by a lavement, produced several good dejections.

Jan. 16th.—Aphthae leaving mouth; appetite for beef-tea, champagne and milk punch. Spontaneous dejection.

18th.—Ligatures came away. Pulse 80; urine abundant and clear; no return of ascites. The patient takes solid food with good appetite, sleeps well, is in excellent spirits, and appears to be progressing every way in the most favorable manner.

Feb. 4th.—Wound healed. Patient walking about her room.

Examination of Tumor.—Weight two and a quarter pounds, making, with the estimated weight of fluid discharged from the cysts, about eight pounds in all. It consisted mainly of two or three large cysts, the inner surface of which was everywhere covered with an abundance of a whitish, opaque, soft substance that resembled considerably, though it was tougher, the fibrinous matter that is often found under an inflamed serous membrane. Mixed with this substance was a considerable quantity of thick, puriform fluid. On microscopic examination of this substance, Dr. Ellis found "numerous irregular granular cells, of various sizes, and without any marked characteristics. Many apparently broken, deformed and degenerating. Nothing decidedly cancerous." The tumor is preserved in the Museum of the Medical College.

The unfavorable circumstances of the patient's age and debility seem to have been counterbalanced by her remarkably equable and hopeful temperament; and the thickened condition of the peritoneum to have prepared it to tolerate the violences of the operation.

THE USE OF NITROUS OXIDE—LAUGHING GAS—CHLOROFORM, &c.

By A. C. CASTLE, M.D., NEW YORK.

[Communicated for the Boston Medical and Surgical Journal.]

THE recent deaths of Mr. Sears, of New York, from the effects of nitrous oxide, or, vulgarly, "laughing gas," administered for "painless tooth extraction," and that of a lady from the effects of chloroform self-administered, have attracted the attention of the public and elicited the remarks of the press, but not, however, the *proper* attention and remarks which these cases, from the fatality or injuries which their administration by ignorant or incompetent persons are likely to cause, demand. It is true that one or more of the press urges the necessity of enacting a law prohibiting druggists selling chloroform, &c., unless prescribed over a physician's signature. In this age of progressive science and "free trade," and every body's right to meddle with subjects they do not understand, scanning the columns of the press, one might almost infer that the only true physician's prescriptions for all the ills that flesh is heir to, are to be found there. Under such circumstances a law would only tend to puzzle the druggist to discriminate which prescriptions emanated from a lion and which from an ass. Would it not be far more sensible, and at once reach the point, to enact a law prohibiting any person or persons using, i. e. administering anæsthetic agents to patients for minor surgical operations unless they have passed a satisfactory examination before a proper medical college or county medical society, who, granting a special license to use these subtle agents, will offer sufficient evidence that the person holding such *license* at least possesses knowledge sufficient to enable him to make a correct diagnosis of constitutional temperaments, and of the presence of organic or functional disorders with which applicants for tooth extraction may or may not be affected?

In the year 1800, Sir Humphrey Davy wrote: "As nitrous oxide, in its extensive operation, appears capable of destroying pain, it may probably be used with advantage during surgical operations in which no great effusion of blood takes place."

Professor Flagg, M.D., Thomas W. Kennedy, M.D., P. B. Mignault, M.D., make oath before Hon. Josiah Quincy, Mayor of Boston, in 1844, and Dr. C. A. Taft and Dr. John C. Warren, also Daniel T. Curtis, Esq., testify that Dr. Wells first used nitrous oxide as an anæsthetic. He afterwards abandoned this gas for other anæsthesia. S. M. Fuller, M.D., of Hartford, Dr. P. W. Ellsworth and E. C. Marcy, M.D., of Hartford, now of New York, Dr. G. B. Hawley, and John M. Riggs, Esq., Dentist, of Hartford, certify before the Mayor of that city, in 1844, that Dr. Wells first employed nitrous oxide. Numerous other gentlemen testify to this use of nitrous oxide by Dr. Wells. This statement is due to truth, because a travelling exhibitor, the head of an association, publishes and advertises his claims

that "he first introduced and demonstrated—May, 1863—the value of this new and wonderful agent, and since May last has daily administered it for the extraction of teeth; although he has administered it to persons suffering from all sorts of diseases—lung complaints, heart disease, &c."

"Laughing gas" was introduced, in the character of an anæsthetic agent, in dental extraction, in the month of April (April 1st?), 1863, by an itinerant mountebank, who for years past has travelled over the country exhibiting fools super-excited into hysterical demonstrations, showing the worst characteristics of poor human nature, "accompanied with song and grotesque amusements," with the assurance that "persons visiting these exhibitions shall be safe from the violence of those inhaling this gas," and exhibiting themselves, and those who misrepresented abused nature by acting under its assumed inhalation.

Anæsthesia for tooth extraction, like many other boons to the human family, has had its periodic and sporadic attacks, which have run their course of charlatanisms. Some twenty-five years since, Mesmerism had its brief but profitable hour. In practice it was a contemptible failure; but an "enlightened public" ran mad after this wonderful phenomenon practically (!) applied. Eight or ten years after this, Boston gave to suffering humanity ETHER, which was at once adopted by the whole medical world—by the scientific and by the learned. Soon after chloroform followed, with what advantages needs no comment here. Sufficient is it, that one or the other of these anæsthetics possesses the confidence of all surgeons and a very large majority of physicians, in cases where their exhibition may be of advantage. Some six years later, congelation or freezing the gums was almost universally recommended and adopted, in England and in the United States, as being the desideratum for painless tooth extracting. This method paid the dentist very well for a time, until the unfortunate patient discovered the remedy to be far worse than the disease—weeks of neuralgic or rheumatic pains frequently following the "breaking up" of the frost in the jaws. This freezing process, then, being thawed out, was followed by a more scientific application, viz., the electro-galvanic battery. The poles were attached to the forceps, &c., and the tooth was to be extracted simultaneously with the electric shock. Here *was* science! certified by many as the *ne plus ultra* of perfection. This scientific method was soon given up, as too many of the patients merely had their nerves tickled with electric reminders, while the operator, chemistry and electro-philosophy all acted independently of each other, and the innocent but offending tooth persistently refused to quit the jaws of the triple-afflicted patient. "The last stage of this eventful history" is the attraction of a travelling charlatan, whose "sans teeth" is produced by the exhibition of "laughing gas."

It would be trifling with the erudition of the readers of this *Jour.*
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NAL to attempt to prove to them that nitrous oxide has been known from the days of Priestley and Sir Humphrey Davy. What may be its chemical and physiological influence upon the animal economy; or what its therapeutical character, influence and results when applied in organic diseases of the lungs, bronchia, larynx, heart; or mere functional derangements of these organs, it is not necessary to dwell upon in this paper.

Most medical men are aware of the preparations of nitrous oxygen; that imperfectly prepared nitrous oxide is a deadly poison to those inhaling it. The nitrous oxide, prepared by the scientific chemists from properly prepared chemical agents, will produce this gas chemically pure, so that it may be inhaled without producing immediate death (perchance without any injury), whatever may be its beneficial effects following its therapeutic use, or the injury following its abuse. It is right that the medical profession should be made acquainted with the fact, that whatever merits or demerits, as an anæsthetic or therapeutic agent, nitrous oxide may possess, either as an exhilarant, stimulant, phlogistic, congestive or irritant, or chemically or physiologically when drawn into the human lungs, not a single chemist, druggist or pharmacien prepares a particle or atom of nitrous oxide for private anæsthetic use, or to supply dentists. It is almost entirely manufactured by persons totally ignorant of chemistry, and who could not even give a proper definition of the word or meaning of chemistry. It is manufactured from the "directions" accompanying the cask apparatus sold for preparing nitrous oxide in large quantity.

Of the filthy and disgusting mode of administering laughing gas, and the dangerous results likely to attend its introduction into the ramifying passages of the lungs, let the following statement serve as an illustration.

Presuming the nitrous oxide chemically pure, it is contained, for dentists' purposes, in a gum-elastic sack holding from four to eight gallons of this gas. Into this gum-elastic bag, through its narrow neck, is permanently fixed a breathing tube about one inch in diameter and from six to eight inches long. Into this breathing tube a "mouth-piece" is fitted, which is made to enter the mouth about one and a half inches, locked air-tight over and against the lip aperture by a flange about an inch wide, similar to the mouth-piece of a wind instrument. The operator compresses the nostrils close with his fingers. The patient now inspires the gas from the sack into his lungs, and expires the breath back into the sack. The patient again, again and again respires and re-respires the whole quantity of gas contained in the sack, including the poisonous carbonic acid gas expired after each respiration. This process is continued until the patient is rendered insensible or asphyxiated. If the operator be an expert, two, perhaps three teeth may be extracted while the patient remains in a somewhat spasmodic anæsthetic state. The patient then be-

comes restless and violent, with hysterical laughter, shouts, or spasmodic screams and yellings. If more teeth are to be extracted, more gas is administered, so that a person may be required to inhale from four to sixteen gallons of nitrous oxide, poisoned with the carbonic acid gas eliminated from the lungs.

Three cases, already, have come under my notice, of persons injured by this gas. First. A young lady, some six weeks since, had four teeth extracted. She inhaled gas four times, since which she has been affected with periodic vertigo, headache, dimness of vision and ringing noises in the ears, indicating cerebral depression or congestion. Second. A young lady three weeks since had three teeth extracted. She inhaled gas twice, and has had oppressed breathing since, stricture across the breast, and occasionally expectorates bronchial mucus tinged with blood. Third. A young man inhaled gas for a long time, four weeks since, and was only reduced to the hysterical condition. He has not been well since. His symptoms are general debility, with melancholy. These persons, previous to inhaling the gas, enjoyed good health.

These affections, though trifling thus far in themselves, may, as no doubt in numerous cases they will, lead to serious complications, when we reflect that the mouth-piece, the breathing tube, and the interior walls of the sack are constantly covered and saturated with the watery exhalation from the lungs, the putrescent emanations of decayed teeth and suppurating gums—the vitiated secretions and all the various morbid conditions to which the different parts of the respiratory apparatus are liable. In the case of Mr. Sears, for instance, the lungs were very extensively destroyed.

Chloroform and ether under all the circumstances, then, pre-eminently surpass in cleanliness and purity the nitrous oxide as at present administered; with the additional vital recommendation that neither of these agents passing from the lungs is respired back into the lungs, carrying with the inspired vapors the filth of other mouths. These agents, also, certainly are more safe in their action on the lungs, than the nitrous oxide poisoned with carbonic acid gas and carrying with it possibly an impregnation of tuberculous poison to inoculate the lungs with tuberculous disease. "*I do not want all the milk,*" exclaimed a dentist, sputtering the liquid filth from his mouth which he had just drawn into it from the mouth-piece and tube while exhibiting before the Society of Dental Surgeons of the City of New York.

The most remarkable feature in the administration of this gas, contrary to the usual fastidious taste of ladies generally who criticize the hands, the dress, the napkins, and the *ensemble* of the dentist and his office accessories—who expect the dentist to perfume his person with the essences of ten thousand flowers, and to rinse his hands in otto of rose or cologne water each time he approaches them—is, that without hesitation—nay, with eagerness, they thoughtlessly de-

mand the employment of this filthy process. It may be answered that the apparatus is always washed after having been used. This is not always the case. After office hours the mouth-piece is washed clean, but the rest of the apparatus is merely rinsed out. Every housewife is aware of the state of uncleanness of any culinary utensil that is not properly scrubbed out after each using. What will they say of a soft, fibrous, enclosed sack daily, weekly, and by the month after month, used by scores of persons of all habits, which is merely rinsed out with water? Few physicians of any standing in medical practice could be found in the United States, or in any other part of the world, so lost to all medical principles, to the faithful discharge of their divine calling, or the moral obligations due to their confiding patients, as to permit them to subject their patients to this horrid, outrageous and offensive absorption of inoculating and deadly poisons.

It is due to the Society of Dental Surgeons of the City of New York to state that it has not endorsed the use of nitrous oxide *as now administered*; and it is also due to the dentists of respectability of the city of New York and Brooklyn to state that few, if any, use nitrous oxide in their practice.

New York, Feb. 11th, 1864.

ON THE ANTIPHLOGISTIC METHOD OF TREATMENT.

BY HENRY VALE, ASSISTANT SURGEON, ROYAL ARTILLERY.

WHAT are we to understand by the term antiphlogistic treatment?

Etymologically, it signifies that which is opposed to inflammation; but, as a technical phrase, it usually implies the employment of means for reducing the quantity and quality of the blood.

Formerly very little doubt was entertained as to the efficacy of such means, but in recent times the propriety of depletion in the treatment of acute inflammations has been denied by a large and constantly increasing number both of physiologists and physicians. It is strange, indeed, that there should be a difference of opinion as to a matter in which the correct observation and interpretation of facts are all that is necessary for the discovery of the truth. The minds of men and their powers of observation are, however, so liable to be warped by the influence of preconceived opinions, that one ought always, before venturing to express a condemnation of their conclusions, to consider the various media, moral and mental, as well as physical, through which the facts themselves may have been regarded.

Thus, if we trace the history of medicine no farther back than the last hundred years, we shall find that the theories which, until recently, have most prevailed concerning the nature of inflammation,

have all seemed to sanction and enjoin the practice of depletion for its cure.

Cullen, for example,* considered "a spasm of the extreme arteries supporting an increased action in the course of the same as the proximate cause of inflammation." He believed that at least in every considerable inflammation there was increased tension, tone, and activity of the whole vascular system, and that this condition was "most effectually taken off by the relaxing power of blood-letting." To diminish the action of the heart and arteries, and to take off the spasm of the particular part, were his chief indications for the employment of remedies, which, whether diluent, refrigerant, sedative, sudorific, emetic, or purgative, were all, like bleeding itself, although not in the same degree, more or less depletive.

Hunter's† view of inflammation was somewhat different. According to his theory, there is in inflammation "either an increase of life or an increased disposition to use with more violence the life which the machine or the part is in possession of; and also there is an increased size of vessels, and of course an increased circulation in the part inflamed, and in the constitution in general."—"We find," he says, "from common observation, that many circumstances in life, as also many applications to parts, will call forth the contraction of the vessels. We are, from the above theory, to apply such means; and whatever will do this without irritation will so far counteract the effects." And again—"The contraction of the vessels is produced in two ways: one by producing weakness—for weakness excites the action of contraction in the vessels; the other, by such applications as induce the vessels to contract."—"The means of producing absolute weakness are bleeding and purging."—"The soothing [i. e., the means of *inducing* the vessels to contract] may be produced by sedatives, relaxants, antistimulants, &c."

Alison‡ writing nearly fifty years later, says, that "inflammation consists essentially in a local increase of a vital property of attraction existing among the particles of the blood, and between them and the surrounding textures, and with which other vital properties are connected and simultaneously excited." Of the remedies he considers that "the only one on which absolute reliance can be placed is bloodletting;" "the efficacy of which," he adds, "would appear to depend on two principles," "to which, indeed, the powers of all other antiphlogistic remedies may be ascribed; *first*, That it weakens the heart's action; and, *secondly*, That it causes a derivation of blood from the affected parts."

And Dr. Watson,§ even in the last edition of his *Principles and Practice of Physic*, says, "Blood being the natural stimulus of the heart, we should deem it probable that the removal of a portion of

* "Cullen's First Lines."

† Hunter on the Blood, &c., pp. 334 and 335, *passim*. London, 1793.

‡ Outlines of Pathology. Edinburgh, 1843.

§ Principles and Practice of Physic. London, 1856.

that fluid would diminish the force with which the heart contracts; and as an inflamed part contains a preternatural quantity of red blood, and as (with the exception of resolution and mortification, which really are *terminations* of inflammation) all the *events* of inflammation depend upon the exudation of certain parts of the blood from its containing bloodvessels, we should be inclined, *a priori*, to believe that the amount of those exudations would be checked and limited by lessening the supply of blood to the inflamed organ, as well as by abating the force with which the blood reaches it. And we find it in fact to be so." "Blood," it is added, "forms the pabulum of the whole process;" and the conclusion follows, that "the great remedy in acute and dangerous inflammation is bloodletting."

Other theories have been advanced at various times, and have appeared equally to support the practice of depletion; but I have quoted the above-named authors in preference to others, because they have been either the originators or the most commonly accepted exponents of the main principles on which medical practice has been based, at any rate in this country, during the last hundred years. It would be foreign to my present purpose to attempt a refutation of their doctrines in detail. I shall therefore assume that these are no longer tenable, referring only to the works of Paget*, Virchow,† Todd,‡ Bennett,§ and Carpenter,|| as my authority for doing so.

But the question, as to whether in inflammation there is an increase or a decrease of the vital powers, is one of so much importance, when considered in reference to bloodletting as a therapeutic measure, that it may not be amiss to devote a little time to its further examination.

Although one cannot but acknowledge that Hunter was right in the distinction which he drew between the healthy and the unhealthy inflammation, it by no means follows that either the one or the other is ever of a *sthenic* character; if by the word *sthenic* there be meant an increase of the *vis vita*, acting either as a cause or as a concomitant of the process. Certain inflammations, in fact, are healthy or unhealthy according as the body in which they occur happens to have been in good health or bad. Thus the *simple* inflammations may or may not be healthy; but the *specific* inflammations, such as the gouty, the rheumatic, the scrofulous, the diphtheritic, the syphilitic, &c., are always more or less unhealthy. The former—i. e., the healthy—tend to run a speedy course and to terminate favorably; the latter—the unhealthy—have a proneness to run on indefinitely, to impair the organism, and to end unfavorably; but in neither case can it be

* Lectures on Surgical Pathology, edited by Dr. Turner, 1863.

† Cellular Pathology, translated by Chance.

‡ Clinical Lectures "On Certain Acute Diseases."

§ Lectures on the Molecular Pathology, in *Lancet*, 1863.

|| Principles of Human Physiology, 1856.

shown that there is an increase, or indeed anything but a decrease, of vital force. The transition from the healthy to the unhealthy inflammations is by insensible gradations, and, notwithstanding that the two extremes are sufficiently distinct, the difference between them is mainly one of degree.

Perfect health, it may be said, is that state in which the vital powers are at their highest point, and it implies an ability to perform with efficiency and ease all the various functions for which the organization of the individual may be adapted. This definition of health, although perhaps not unexceptionable, is still sufficiently correct for our present purpose. Health, then, as I understand it, is something more than mere life—it is the perfection of life; and if this view of it be the true one, then any deviation from the condition which it involves can only be in the direction of the opposite state, viz., death—the cessation of vital power. Hence it may be inferred, that even the existence of inflammation in the body is a proof that the latter has suffered a decrease of its vital force; and this conclusion is supported by the fact, that such an affection renders the system unable to resist those predisposing and exciting causes of disease, which, under ordinary circumstances, it would sustain with impunity. It would also follow, as a necessary consequence, that the symptoms by which inflammation manifests itself, no matter what impression they may be calculated to convey to the minds of the unskilled, ought to be regarded as indications of diminished vitality, differing only in degree.

It is more than probable that, in considering the etiology of inflammation, systematic writers have not hitherto been in the habit of attaching sufficient importance to the influence of great functional activity as a predisposing cause. The liability to diseases of the thoracic organs in the inhabitants of cold and temperate climates, shows the effect of great and long-continued functional activity on the part of the lungs in predisposing them to inflammation; and the tendency to disorders of the abdominal organs in the inhabitants of tropical countries shows the same fact no less clearly. Excessive functional activity, or, in other words, the over-exertion of a part, necessitates indeed an increased degree of nutritive activity, from which condition to that of actual inflammation there is but a single step. But health is only compatible with a proper control over, a due regulation and balancing of the nutritive process; the moment this control is lost there is a departure from the healthy state, and inflammation, as we call it, is the result. Mammitis, pneumonia, hepatitis, &c., are oftentimes examples of nutritive powers overtasked in consequence of excessive functional activity. In such cases there is nothing that can be considered truly sthenic:—the vital force is not increased; on the contrary, it is simply overborne.

The objections to the theory that the process of inflammation had as its concomitant an increase of the vital powers, did not fail

to present themselves to the sagacious mind of Hunter. Thus, he observes, towards the close of his immortal work, "Whether the disposition for inflammation and the change produced in the blood arise from a real increase of animal life, or whether it is only an increase of a disposition to act with the full powers which the machine is already in possession of, is not easily determined; but it appears to be certain that it is either one or the other. There are some circumstances, however, that would incline us to suspect it to be the latter; because there is often inflammation when the powers of the machine are but weak, when it appears to be only an exertion of very weak powers arising from some irritation produced."

In this passage, an increase of the vital force is evidently distinguished from an increase of vital action resulting from diminished power; and one cannot but feel surprised that the mind which could perceive so distinctly the direction in which the truth lay, should at the same time have entertained the notion that there was such a condition as that of a too perfect health. It is necessary to make another extract here, in order to show on what grounds the latter theory is based.

"I do not," he remarks, "look upon full health as the best condition to resist disease; disease is a state of body which requires a medium; health brooks disease ill; and full health is often above par. Persons in full health are too often at the full stretch of action, and cannot bear an increase, especially when diseased; and, as I before observed, it is a new impression on the constitution, and till it be in some degree accustomed to local disease, it is less able to bear such as is violent."*

To any one who takes the trouble of carefully examining this part of Hunter's work, it must, I think, become evident that Hunter fully perceived the inherent weakness of this theory, and its opposition to the whole tenor of his observation and reasoning. Indeed, it is difficult to avoid the conclusion, that it was put forward in order to reconcile the practice of depletion, so universal in his day, with his entire conviction that "strength probably under every circumstance produces good results."†

Certainly, it used formerly to be the practice of surgeons to submit their patients to a course of purgation and low diet before performing any serious operations; but a more enlightened experience has fully proved that, in surgical practice, the theory that "health brooks disease ill," is entirely erroneous; nay, more, that it is the very opposite of the truth; and consequently we find that in the present day no surgeon ever thinks of adopting this practice. Where shall we now look for a man "in full health?" To the prize-ring, I imagine, if anywhere; but if we refer to the records of "*Bell's Life*," we shall find that Sayers and Heenan, being in

* Hunter, op. cit., p. 233.

† Ibid., p. 228.

the highest possible condition, or, in the language of Hunter, "in full health," and even "at the full stretch of action," recovered with extreme rapidity from the injuries which they sustained in their memorable conflict. The whole history of the prize-ring, of the stable, and of the cock-pit, is adverse to the theory that "health brooks disease ill." Men in the most perfect health, or "in the highest condition," according to the sporting phrase, recover "with wonderful facility from the effects of injuries, and their wounds heal very rapidly."* The fundamental error, in fact, has consisted in the supposition that inflammation was attended with an increase of vital force. The terms "vital action," "vital activity," "vital powers," and the like, have often been used too loosely, and as if they were mutually convertible; whilst the outward manifestations of abnormal or "increased" action have been looked upon as proofs of an increase of vital strength. As Dr. Carpenter observes, "Although it has been customary to speak of inflammation as a state of increased action in the part affected, of which increased action the augmentation in the bulk and weight of an inflamed part, and in the quantity of blood that passes through it, together with its high temperature and more acute sensibility, would seem to furnish sufficient evidence; yet all these signs are found to be deceptive when they are more closely examined; and the conclusion is forced upon us, that the vital power of the part is really *depressed* rather than exalted."

It seems to me that, in the controversy which has taken place on this question, too much reliance has been placed on the idea that there are sthenic and asthenic "waves of time," according to the picturesque expression of Dr. Watson.† The statement of Dr. Alison,‡ that "the symptoms and particularly the constitutional fever usually attending internal inflammations have undergone a very considerable change since the early part of the present century," however valuable as the opinion of an eminent physician, has been accepted, it is probable, more from deference to his authority than from regard to the facts themselves. If we were to take our opinions concerning inflammation and its treatment solely from the writings of Cullen, Gregory, Armstrong, Alison, Clutterbuck, Watson, &c., we should be compelled to admit that, from the time when Cullen wrote, up to a very recent period, the sthenic type of inflammation continued to prevail; and, indeed, it seems difficult at first sight to resist the evidence of so many and such excellent observers. But we must remember, if we would seek to be impartial in our judgment, that there are authorities to be cited on the opposite side of the question. Brown, for example, although a pupil of Cullen, did not hesitate to proclaim a doctrine that differed entirely from that of his master. But there were circumstances connected with

* Carpenter's Human Physiology, 1856.

† Watson, op. cit.

‡ Alison, Edinburgh Medical Journal, 1867.

the career of Brown which prevented his contemporaries in this country from acknowledging his merits as a physician. Abroad he has been held in higher estimation; and it is to be hoped that his writings will before long assume amongst ourselves the prominence to which their unquestionable ability entitles them. As, however, the value of his evidence may still be called in question, I shall not lay any stress on it; and I may dispense with his testimony the more easily, because the writings of John Hunter can be adduced on the same side. The remarks made by him, now exactly seventy years ago, almost seem as if they had been written yesterday. "It is observed,"* he says, "by some of the ablest physicians of this day, that the fever called inflammatory is now not so common in this country as it was formerly represented to have been; that it is now seldom that in fevers they are obliged to have recourse to the lancet, at least to that excess which is described by authors in former times. They are now more obliged to have recourse to cordials than evacuations; and indeed the disease called the putrid fever and putrid sore throat [diphtheritis?] are but of late date."—"I remember when practitioners uniformly bled in putrid fevers, but signs of debility and want of success made them alter their practice."—"Whether the same difference takes place in inflammation I do not know, but I suspect that it does in some degree."—"I believe we have much less occasion for evacuations in inflammation than there were formerly; the lancet, therefore, in inflammations and also purgatives are much more laid aside."—"We certainly live now more fully than what they did formerly. We may be said to live above par. At the full stretch of living, therefore, when disease attacks us, our powers cannot be excited further, and we sink, so as to require being supported and kept up to that mode of life to which we have been accustomed."

It is almost incredible that these words, corroborating so strongly the observations of Brown, and written probably during the lifetime of Cullen, Gregory, and Alison, have never received the attention they deserve. It is evident that, if we may consider Hunter as a competent witness in this matter, an adynamic phase of disease prevailed whilst he lived and wrote; but if we believe this statement, we must disbelieve the assertion that Cullen and Gregory, and their disciples, were correct in their views, or in the practice which they adopted for the treatment of inflammations. Furthermore, if we admit this evidence of Hunter, and also believe, with Winslow,† Clark,‡ and others, that the human race is still undergoing deterioration, owing to the excesses and vices of civilization, we must wonder how it happens that man still manages to live his "three score years and ten;" for the present "adynamic wave" seems to have lasted very nearly a century; and if we are to judge from the practice that

* Hunter on the Blood, etc., 1793, page 227.

† Journal of Psychological Medicine, July, 1857.

‡ Treatise on Pulmonary Consumption.

is every day becoming more and more general, of "having recourse to cordials rather than to evacuation," it is still very far from being likely to give place to one of a sthenic character.

The advocates of the change-of-type theory appear to have ignored altogether the evidence of Hunter concerning the medical constitution, as it is called, of the time in which he lived; and therefore, until farther proof is adduced in favor of this hypothesis, we shall be justified in refusing to accept it. We may likewise be entitled to doubt whether the degeneration of the human race has not rather been a convenient theme for the sickly fancies of the poets than an actual fact; for such a continual process of degradation as the poets have conceived, and many medical writers have really believed in, would, if there be any truth in Darwin's theory, have made gorillas of mankind long before now, had it been really in operation.—*Edinburgh Medical Journal.*

[To be continued.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 3, 1864.

ASYLUM FOR INEBRIATES.—The address of His Excellency John A. Andrew to the Legislature of Massachusetts, recently published, furnishes, with its accompanying documents, unusual matter of interest to the medical profession, and evinces the same fostering spirit towards institutions of learning and philanthropy which has throughout characterized his patriotic and far-seeing administration. Among the papers appended to the message there will be found an account of certain interesting experiments made by Dr. Morrill Wyman, of Cambridge, upon the nature of pleuro-pneumonia in cattle, to which we shall refer at some future time, and a report to the Governor and Council, made by Hon. Alfred Hitchcock, in his capacity of a Councillor and also a member of the special commission on lunacy, on the subject of a Hospital for the Curative Treatment of Inebriates, to which His Excellency refers in these words: "I earnestly invoke for this eloquent and ably reasoned document on a subject too long neglected, the attention of the General Court."

Dr. Hitchcock's report is chiefly devoted to an account of a visit made under special instructions of the Governor to the Asylum for Inebriates at Binghamton, N. Y., which has been projected by Dr. J. E. Turner and built by the funds raised by private subscriptions through his own exertions. The institution, now nearly finished, will accommodate 500 patients, and is intended to be self-supporting. This gentleman, according to Dr. Hitchcock, has made a special study of inebriety for nineteen years in this country and in Europe, and shows, from the results of over 300 *post-mortem* examinations of inebriates, "that the anatomical changes are *specific*, and more certain and palpable than in cases of insanity from other causes. He also shows that, in 1,179 cases of delirium tremens, under his observation, 816 of

them were hereditary, having an inebriate parent or grandparent, or both; and that 55 per cent. of all our insanity, and 68 per cent. of all our idiocy, springs directly or indirectly from inebriety alone. He also shows that a distinction should be made between *intemperance* and *inebriety*; the first being improper indulgence against warnings of conscience, an abuse of natural or artificial appetite, while there is *will* and *power* of choice; in short, the common intemperance of society, down whose rapidly descending steps the tottering legions pass unconsciously across that shadowy and undefined line which transfers them to the class of inebriates. On the one side of this line the family, the school, the church, and the civil law may hopefully exert their reformatory power, and rightfully inflict their penalties; on the other side of this line the inebriate is a *diseased man*; diseased *mentally, morally and physically*. He is still also an intemperate man, but his will is powerless, his conscience is gone, and he drinks per force of the anatomical changes which have taken place in his own body. He is now without legal or moral accountability for his irresistible appetite. This disease of inebriety is both hereditary and self-induced; and when hereditary a small amount, and we cannot give the minimum of the exciting cause, will suddenly develop the disease with clamorous and irresistible power.

"The theory of asylum treatment is, in its largest sense, *preventive*, as well as *curative* and *custodial*; and in no degree will it curtail or supersede all possible antecedent or coöperative reformatory influences. For more than a quarter of a century philanthropists have been engaged in associated efforts to suppress the use of intoxicating drinks as a beverage. They have doubtless done good, much good to individuals; and yet moral suasion and coercive measures have both proved unavailing to stay the desolating increase of drunkenness. Reliable statistics show that from 1840 to 1850, in this country, insanity and idiocy, chiefly caused by inebriety, increased 80 per cent."

There can be no doubt that a vast amount of misery might be prevented by the establishment of a similar institution in this State. Private asylums, like the excellent Washingtonian Home in this city, already do much to assist the inebriate in his weak endeavors towards reform, and to relieve the household of its burden of such a member, but they cannot compel a residence sufficiently long to effect a cure, or receive those who have committed crime while rendered temporarily insane by alcohol. In a State hospital, however, power may be granted by which every patient shall be retained one year at least, whether offering himself voluntarily as an inmate or committed by a court of justice, and his discharge or retention after that period should rest with the commission appointed for such purpose. We must consider the inordinate love of strong drink as a *disease*, and as one which cannot be treated in the ordinary way by the physician, inasmuch as restraint is absolutely necessary. The State, however, has always regarded it as a crime, and has punished where it ought to have offered the means of cure. The gist of the whole question, as the Rev. Kendall Brooks states in the appendix to Dr. Hitchcock's valuable report, is just here: "and to say nothing of the claims of philanthropy, a true economy not only warrants, but demands that some provision be made by the State for rescuing men who are subjects at once of disease and crime. The most enlightened nations have ceased to treat an insane criminal

simply as a criminal. His insanity is taken into account in determining the treatment he is to receive. Why should not the same principle be applied in the treatment of the criminal inebriate? And if the inebriate who has become a convict under the laws of the Commonwealth, why not still more of one who has not been convicted of any crime, but who may desire for himself, or whose friends may desire for him, that the power of his terrible disease may be broken, and he be restored to the State and the world, a sound and useful citizen? It is only within a few years that attention has been called to this claim of philanthropy and political economy. Some of the States of our Union, and some of the countries of Europe, are already taking the first steps towards the establishment of Asylums for Inebriates. May we not hope that Massachusetts, as in so many instances, so in this, will be among the first to meet this claim alike of humanity and expediency."

We trust that the Legislature will give their serious attention to this question, which has again been forcibly presented to their consideration during the past week in the report of the Board of Commissioners on Lunacy.

MESSERS. EDITORS,—Your JOURNAL of the 11th inst. contains a report, by Dr. J. G. Blake, of Boston, of a case of poisoning by opium, with an account of the treatment of the case and death of the patient.

There are a few considerations in connection with the ordinary course of treatment pursued in this class of cases which I wish to present, and I shall stand the best chance, probably, of making myself understood if I offer my remarks by way of criticism upon Dr. Blake's practice, as he details it in his case.

I gather from the report that the ounce of laudanum had been swallowed something more than two hours before Dr. B. saw the patient. Certainly its influence as a stimulant had entirely passed by, and the patient was in a state of genuine debility. I wish to ask, now, if this is a suitable case for the administration of such a sedative as a drachm of ipecac. and ten grains of sulphate of zinc; or, is this a state in which the prostrating influence of an emetic is desirable, provided the medicine will act as such? The treatment was commenced "by shaking pretty roughly for a few moments." Now, suppose we should go in this way at work with a patient in an extreme state of debility from any other cause; what would happen? Anybody can answer—he would die. But suppose we gave him over to the buffetings of "six or eight men and two police officers," and in the midst of the flagellation repeated the sedative of ipecac. and saw added to it the prostration of a season of vomiting. Should we not consider recovery miraculous?

Not to pursue this course of inquiry any further, we must now inquire why the patient failed to recover, after the apparent improvement which took place. Was it not because his powers had been so thoroughly broken down, in the course of this excessive exercise, in the midst of his extreme debility?

I am by no means oblivious to the course of treatment recommended by the authorities for cases of poisoning by opium, and my intention

is, to call in question the propriety of just so much of the whole of it as relates to the use of emetic remedies and perpetual exercise in the second stage, or the state of debility of all the cases. Dr. Pereira believes there is no such thing as an antidote to the effect of opium known. Dr. Headland thinks that the only way in which the effect of opium is recovered from, is by the elimination of its particles from the system; and Dr. Wood believes that "death is produced by a suspension of respiration arising from the want of due influence of the brain."

Allowing that these opinions are correct, let us see what course of treatment is deducible from them. That the stomach should be cleared of its contents as soon as possible needs no argument, but it should always be done without emetics—for two reasons:—First, to avoid the sedative influence of emetic medicines; and, second, to avoid the labor of vomiting. Hence the stomach should always be emptied by pumping.

The elimination of the opium from the system requires time, and free action of the excretions. Then as long as respiration goes on uninterruptedly, the treatment is complete. Time will conduct the whole matter of recovery. But if the respiration fails, resort should be had to two things. Respiration should be promoted by slight agitation of the body, and when this fails we must depend upon artificial respiration; and this done, all is done. There certainly is no sensible view of the case that does not condemn this severe exercise.

The use of an infusion of coffee may be desirable, for the simple reason that a combination of coffee and opium acts as a diuretic, and would thus promote the elimination of the poison from the body.

On the 14th day of May, 1862, shortly after noon, Mrs. I. L. P., about 30 years old, having had some difficulty with her husband, over which they separated, became tired of life and attempted to end it by swallowing an ounce of officinal laudanum. The act was discovered immediately, and I was called within an hour. The evidence of her having swallowed the ounce, appeared to be clear: but she was awake, and seemed to have the full use of her intellect; told friends how she wished them to dispose of her affairs, and appeared to be as certain of dying as she could possibly be. She absolutely refused to take the least thing.

I immediately called in my friend, Dr. L. H. Allen, and we thought the probability was, that her stomach would respond to the use of emetics, and by force we compelled her to take ipecac. and sulphate of zinc, and pulverized mustard seed profusely; but it failed us entirely, and she became insensible astonishingly soon. I went to my office for the stomach-pump, a distance of about 30 rods, as quickly as I could, and we succeeded without any trouble in clearing the stomach of its contents, which was loaded with the odor of laudanum. With a pitcher and tunnel we put down a quart of lukewarm water, and after a few minutes removed that, and put down another quart, which we also removed in a short time, and then we put down about a pint of infusion of coffee, and afterwards let her alone.

We were prepared to make use of artificial respiration if necessary, but before the next morning the narcotism began to subside, and within twenty-four hours she was very well over it.

Now I do not believe that this patient would have recovered, if we had visited her with such a dispensation of prostrating and breaking down exercise, as it is the habit of some to practise in these cases.

Very truly, &c.,

Owego, N. Y., Feb. 15th, 1864.

E. DANIELS.

CHALK PAINT FOR BURNS. *Messrs. Editors*,—Noting an article on page 101, Part xlvii., of *Braithwaite's Retrospect*, on "Burns," I determined to make trial of the remedy there spoken of, and Tuesday, Feb. 9th, the opportunity presented. A little girl, about 6 years of age, the child of Mr. George W. Tillinghast, of Valley Falls, R. I., having been left alone for a few moments, got its clothes on fire, and before they could be removed, which was finally effected in the open air, it was frightfully burned about the chest, neck, back, and both its arms and hands. Three hours had elapsed after the accident before I saw it, during which time a kind neighbor had tenderly held it, occasionally applying olive oil, which afforded partial relief. I procured linseed oil and mixed with it common chalk, grated fine, so as to form a thick paint, and added one quarter as much vinegar as I had used of the oil, and applied with a cloth swab. Immediate and complete relief followed. The burn, the exposure to the open air, and the three hours of great suffering produced such deep collapse, however, that no effort of rallying occurred, and death took place in nine hours afterwards. This remedy forms a perfect cover, and thereby excludes the air, which the oil and lime-water will not accomplish. What special virtue there is in the chemical action produced by the addition of vinegar, I will leave for others to speculate upon; but certain it is that nothing which I ever used or saw used, can compare with it in affording relief. If linseed oil were not at hand I should use olive oil or melted lard, and if the latter, probably the best mode of application would be to spread it upon strips of calico and cover the injured parts with them.

Pawtucket, R. I., Feb. 17th, 1864.

JAMES O. WHITNEY, M.D.

WHEN we consider how appropriate a theme the sufferings of Homer and Milton might have furnished some New York bard, we wonder much that the poet was not asked to contribute his share also to the varied nature of the entertainment provided on the occasion of the twelfth commencement of the New York Ophthalmic School and Hospital, on the evening of February 29th. We commend the following programme to the notice of heads of faculties and students of ophthalmic surgery:—

PROGRAMME.

OVERTURE. "La Sytende."	Auber.
PRAYER.	
MUSIC. Selections from "Les Vespres Siciliennes."	Verdi.
INTRODUCTORY REMARKS,	by Solomon Jenner, A.M.,
President of the Institution.	
MUSIC. "Il Bacio." Waltz.	Arditi.
PRESSENTATION OF DIPLOMAS TO THE GRADUATING CLASS.	
MUSIC. Selections from "Un Ballo in Maschera."	Verdi.
CHARGE TO GRADUATES,	by Marcus P. Stephenson, M.D.,
Attending Surgeon and Lecturer on Ophthalmic Medicine and Surgery.	
MUSIC. Galop, "Frisches Leben."	Zabel.

ANNOUNCEMENT OF PRIZES.

MUSIC. Selections from "Maritana," - - - - - Wallace.

VALEDICTORY ADDRESS, - - - - - by George G. Needham, A.B.,

Of the Graduating Class.

MUSIC. Polka. "Myrthen." - - - - - Cowadi.

BENEDICTION.

MUSIC. - - - - - National Airs.

HARVEY B. DODWORTH,

Musical Director.

MASSACHUSETTS MEDICAL COLLEGE.—The Annual Commencement for the conferring of medical degrees will take place at the College on Wednesday, March 9th. The exercises will commence at 11 o'clock, A.M., with a prayer by President Hill, after which graduates will read selections from their dissertations. The degrees will then be conferred by the President, and the whole will conclude with an address by His Excellency Gov. Andrew.

The Corporation and Board of Overseers of the University will be present on the occasion, and the Fellows of the Massachusetts Medical Society, all medical students, and all persons who may be interested in medical science, are hereby respectfully invited to be present.

D. HUMPHREYS STORER, M.D.,

Wednesday, March 2, 1864.

Dean of the Medical Faculty.

SUCCESSFUL CASE OF OVARIOTOMY.—We would call attention to Dr. Clark's interesting case of ovariectomy, printed in this week's number. It is, we believe, the first successful case that any Boston surgeon has had.

DR. ALGERNON COOLIDGE has been elected, by the Trustees of the Massachusetts General Hospital, Surgeon to Out-patients of that Institution.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 27th, 1864.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	49	47	96
Ave. mortality of corresponding weeks for ten years, 1853—1863.	42.7	39.9	82.6
Average corrected to increased population	00	00	90.77
Death of persons above 90	1	1	2

Mortality from Prevaling Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Varola.	Dysentery.	Typ. Fev.	Diphtheria.
16	4	10	11	1	0	0	6

DEATHS IN BOSTON for the week ending Saturday noon, Feb. 27th, '64. Males, 49—Females, 47.—Accident, 1—Inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 1—Inflammation of the brain, 1—bronchitis, 6—consumption, 16—convulsions, 4—croup, 4—cyanosis, 1—diarrhoea, 1—diphtheria, 6—dropsy, 6—dropsy of the brain, 2—scarlet fever, 10—disease of the heart, 2—infantile disease, 1—intemperance, 1—intussusception, 1—congestion of the lungs, 2—Inflammation of the lungs, 11—old age, 2—paralysis, 1—pleurisy, 1—premature birth, 2—puerperal disease, 1—purpura, 2—scrofula, 3—smallpox, 1—unknown, 3—rupture of the uterus, 1.

Under 5 years of age, 38—between 5 and 20 years, 13—between 20 and 40 years, 18—between 40 and 60 years, 13—above 60 years, 14. Born in the United States, 67—Ireland, 25—other places, 4.